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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/431,674	11/01/1999	DAVID BAGGETT	09765/017001	9072

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EXAMINER

PORTER, RACHEL L

ART UNIT	PAPER NUMBER
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2166

DATE MAILED: 01/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/431,674

Applicant(s)

BAGGETT ET AL.

Examiner

Rachel L. Porter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-14 are pending.

Drawings

1. The drawings are objected to because some of text in the figures (especially figures 3A, 3, 4, 6 and 9) is illegible. Also, in Figure 9, it is unclear how steps 134 and 136 fit into the process illustrated in the figure. Proposed drawing corrections or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include several reference sign(s) not mentioned in the description. These reference numbers include but are not limited to: Figure 2, #'s 66b, 66c, 66d; Figure 3A #'s 76a and 76b; Figure 5, #'s 102 and 109. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include several reference sign(s) mentioned in the description. These include but are not limited "116" (page 17, line 25) and "132" (page 20, line 8). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "104" has been used to designate both the "faring process" step (figure 5) and the "check availability" step (figure 6). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: The application numbers/file date for the copending applications should be included (page 8, line 21).

Appropriate correction is required.

6. Claim 5 is objected to because of the following informalities: The applicants claim "fixed and marginal costs associated with obtaining information, including computation, . . . and cost". The use of the term "cost" in the last line of the claim does not further limit the types of marginal and fixed costs associated with obtaining the information. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether the applicants intend to claim a system or a method. The independent claim (claim 1) recites a system yet no system components are recited. It is unclear to the examiner whether the use of the term "process" in the base claim is intended to mean a processor (a system component) that performs the claimed functions or whether the applicants intend to claim a method (a process). For the purposes of examination, the examiner will interpret the term process to mean any system component that performs the functions recited in the claims.

9. Regarding claim 9, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). For the purposes of examination, the examiner will interpret the claim limitation to mean the differing quality properties include at least one of the following: freshness of data, validity of data, precision of data or a confidence rating of the data results.

10. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what the applicants mean by "a single source of seat availability for a mode of transportation." One may interpret this phrase to mean availability information from one source for many transportation providers (i.e. commercial centralized reservation systems or CRS's), for a single transportation provider (i.e. an airline or bus company) or for both. For the purposes of examination,

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the examiner will interpret this phrase to mean that the source of availability information may include a CRS or a single transportation provider seat availability source.

11. Claims 3,4,5, and 9 recite the limitation "sources of seat availability". There is insufficient antecedent basis for this limitation in these claims. In claim 1, on which these claims depend, only one source of seat availability is claimed. For the purposes of examination only, the examiner will interpret this to mean that the system of claim 1 uses at least one source of seat availability information.

12. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim fails to explain what is done with the travel planning process data and how this data relates to the intelligent client. For examination purposes, the examiner will interpret this claim to mean that the travel planning process data *are sent* to the intelligent client.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application

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being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

14. Claims 1-4, 9, and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Lynch et al (US Patent No. 6,119,094). (This reference will be referred to as Lynch '094 throughout this action).

In reference to claim 1, Lynch '094 teaches a travel planning system comprising:

- a scheduling component that determines a set of travel options to satisfy a user's request (column 2, lines 57-60)
- a faring component to determine valid fares for some of the travel options (col. 2, lines 60-65)
- an availability component to search at least one source of seat availability data for the travel options and to determine if the data from the availability sources is reliable (column 2, lines 60-65; figure 3, column 6, lines 11-17)

To verify the reliability of the availability data, the system determines whether or not a predetermined time period has lapsed since the information was last obtained (figure 3, column 6, lines 11-17) and updates the stored availability data accordingly.

In reference to claim 2, Lynch '094 teaches a system that will check one or more computer reservation systems (sources of seat availability information) if the information is outdated (i.e. results are not reliable). (column 6, lines 22-25)

In reference to claims 3 and 4, Lynch '094 teaches that the system checks the sources of availability information sequentially or simultaneously. (column 6, lines 25-37)

In reference to claim 9, Lynch '094 teaches a system wherein the sources of availability information have different quality properties associated with them. The freshness of the data (i.e. how recently it was updated) varies for each of the sources. (Figure 3, column 6, lines 11-17)

In reference to claims 11-13, Lynch'094 teaches a system wherein speculative calculations (i.e. genetic algorithms) are used to develop a variety of possible travel options (speculative travel options) based loosely upon a user's travel request. (column 7, lines 29-45). These options/parameter are developed before the availability inventory is verified (i.e. availability information is uncertain/missing.) The system then uses these results and searches the availability inventory to identify travel options that fit within the computed travel options (col.7, lines 46-49).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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16. Claims 5-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch et al (US Patent No. 6,119,094) in view of Lynch et al (US Patent No. 5,839,114). Lynch et al (US Patent No. 5,839,114) will be referred to as Lynch '114 throughout this action.

In reference to claim 5, Lynch'094 teaches the travel planning system of claim 1 as explained in the rejection of claim 1. Lynch '094 does not specifically teach that there are different costs associated with accessing the different sources of seat availability information. However, as per Lynch '114, charging for accessing proprietary CRS's (sources of seat availability data) is well known in the art. (column 1, lines 33-38) At the time of the applicants' invention, it would have been obvious to one of ordinary skill in the art to modify the system of Lynch '094 so that there are different costs associated with accessing the sources of seat availability data. One would have been motivated to do this to ensure that the CRS providers are fairly compensated for the use of their systems (i.e. compensated on a per use basis).

In reference to claim 6, Lynch '094 and Lynch'114 in combination teach the travel planning system of claim 5 as explained in the rejection of claim 5. Furthermore, Lynch'114 teaches a travel planning system wherein a threshold is used to help control the costs of accessing availability data. The system calculates which source of seat availability data will optimize the hits-to-bookings ratio for the user (i.e. travel agency) and thereby lower the costs or fees charged to user (i.e. travel agency). (column 1, lines 26-38; col. 2, lines 31-38) The system stores the target hits-to-booking ratio (i.e. threshold) for each availability source and determines whether that source should be

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accessed based on its target hits-to-booking ratio (i.e. threshold) (figure 3; col. 6, lines 4-10) At the time of the applicant's invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lynch'094 with the teachings of Lynch'114 so that the travel planning system thresholds are associated with accessing availability data. One would have been motivated to do this so that the user is made aware of the costs of arranging travel and is more economical in using the resources.

In reference to claims 7 and 8, Lynch'094 does not specifically teach a method wherein the thresholds holds are timeouts or cost limits or that availability component prioritizes queries to a source to remain under the specified cost threshold. Lynch '114 teaches a system wherein the system prioritizes which availability source should be queried based on the likelihood that the user will make a reservation from that availability source (i.e. the user's hit-to-booking ratio) (column 4, lines 26-44). This ratio impacts the user's cost for accessing this data and effectively serves as a cost threshold. To lower the costs of accessing the availability source, the user must remain under certain hit-to-bookings ratio. At the time of the applicants' invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lynch'094 with the teachings of Lynch'114 using the rationale applied in the rejection of claim 6.

In reference to claim 10, Lynch '094 teaches the travel planning system of claim 1 as applied to the rejection of claim 1 above. Lynch'094 does not teach a system wherein the availability process determines the tradeoffs between costs of accessing the data and the properties of the response. Lynch'114 teaches a travel planning

system wherein the tradeoffs between costs of accessing the data and the properties of the response are weighed. (column 2, lines 31-38; column 4, lines 26-42) The system determines the likelihood that accessing a particular CRS will result booking or not. Successful booking decreases the user's hits-to-booking ratio and lowers the cost of accessing the availability source (col. 1, lines 19-38) Accessing the source (CRS) without booking through that CRS increases the ratio and will result in the user paying (or paying more) to access the availability source. At the time of the applicants' invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Lynch'094 so that the cost of accessing a resource are weighed against benefits gained by accessing that resource. One would have been motivated to do this to make the system more economical and to save money and time.

17. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch'094 in view of Slotznick (US 5,983,200)

Lynch'094 teaches the system of claim 1 as explained in the rejection of claim 1. Lynch'094 does not specifically teach that the travel planning data are sent to an intelligent client for further processing. Slotznick teaches a system wherein an intelligent client (agent) is used to accomplish delegated tasks such as preparing and arranging travel reservations. (column 13, lines 1-23). Furthermore, Slotznick teaches that the intelligent agent accumulates a learned knowledge database of details related to a task each time it performs that task. At the time of the applicants' invention, it would have been obvious to one of ordinary skill in the art to modify the system taught by Lynch'094 with the teachings of Slotznick so that a the client computer (i.e. travel

agency workstation) functions as an intelligent client which can further process and integrate the travel planning data and schedule travel arrangements. One would have been motivated to do this to make the travel planning system and method of Lynch'094 faster and more efficient. As indicated by Slotznick, the using an intelligent agent speeds the execution of tasks and ensures that accumulated pertinent data (e.g. traveler preferences) are incorporated in travel planning process. (column 3, lines 45-50)

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- "Fly with the OAG Electronic Edition" teaches a system for accessing electronic travel planning information and charging fees for said access.
- Johnston ("Amadeus takes on Sabre") teaches a travel reservation system that performs real-time seat availability verification to ensure reliability of data.
- Kanou (JP Patent No.: JP7230509 A) teaches a reservation system that verifies and updates seat availability data.
- "Travel Industry Embraces Internet Travel Network. . ." teaches a system for arranging travel incorporating various transportation modes and lodging accommodations.
- Ahlstrom et al (US Patent No. 4,862,357) teaches a reservation system that ranks travel itineraries in accordance with predetermined limitations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel L. Porter whose telephone number is 703-305-0108. The examiner can normally be reached on M-F, 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on (703)305-9588. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

RP
January 28, 2002


JOSEPH THOMAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100